

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): A noise cancel circuit for removing noise components in ~~a detected radio~~ an input audio signal, comprising:

an interpolation circuit for performing interpolation processing on said ~~detected radio~~ input audio signal, and

an LPF for eliminating ~~low~~ high frequency components of the ~~detected radio~~ input audio signal, an output of the LPF being provided to the interpolation circuit and the interpolation circuit performing an interpolation process on the output from the LPF, ~~wherein~~ and

~~during generation of a pulse noise, a noise portion of said detected radio signal is interpolated by an output signal from said interpolation circuit.~~

a noise detection circuit for detecting the noise portion of said input audio signal, wherein

the input audio signal has a frequency within the audio frequency band, and

the noise portion of said input audio signal is changed to an output signal from said interpolation circuit according to an output signal from said noise detection circuit.

2. (Original): The noise cancel circuit defined in Claim 1, wherein said interpolation circuit executes spline interpolation.

3. (Currently Amended): The noise cancel circuit defined in Claim 1, further comprising:

a noise detection circuit for detecting the noise portion of said ~~detected~~ radio input audio signal, wherein

the noise portion of said ~~detected~~ radio input audio signal is interpolated by said interpolation circuit according to an output signal from said noise detection circuit.

4. (Currently Amended): The noise cancel circuit defined in Claim 3, further comprising:

a first delay circuit for delaying said ~~detected~~ radio input audio signal;

a selection circuit for selecting either the output signal from said interpolation circuit or the delayed ~~detected~~ radio input audio signal from said first delay circuit, wherein

said selection circuit is controlled according to the output signal from said noise detection circuit.

5. (Original): The noise cancel circuit defined in Claim 4, wherein
said interpolation circuit performs interpolation processing and outputs an interpolation signal regardless of presence or absence of noise components.

6. (Previously Presented): The noise cancel circuit defined in Claim 5, further comprising:

a second delay circuit for delaying said interpolation signal from said interpolation circuit.

7. (Original): The noise cancel circuit defined in Claim 6, wherein
said second delay circuit is disposed in a processing stage prior to said
interpolation circuit.

8. (Currently Amended): The noise cancel circuit defined in Claim 6,
wherein
a delay time of said first delay circuit ~~corresponds to~~ is determined
based on a sum of an interpolation processing time of said interpolation circuit and
a delay time of said second delay circuit.

9. (Original): The noise cancel circuit defined in Claim 8, wherein
the delay time of said second delay circuit corresponds to a difference
obtained by subtracting the interpolation processing time of said interpolation
circuit from a time delay between generation and detection of said pulse noise.

10. (Cancelled).

11. (New): The noise cancel circuit defined in Claim 1, wherein
said input audio signal is an FM radio signal, and
said LPF passes a main signal and eliminates sub-signals and pilot
signals.

12. (New): The noise cancel circuit defined in Claim 1, further comprising:
a timer controlling a timing of changing the noise portion of said input
audio signal to the output signal from said interpolation circuit.

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13. (New): The noise cancel circuit defined in Claim 1, further comprising:
a switch for changing the noise portion of said input audio signal to the
output signal from said interpolation circuit according to the output signal from
said noise detection circuit.